HAWAII FACT SHEET

FY 2020 FAST FACTS

$49,016,000
Total NSF awards to Hawaii

$45,265,000
Invested in fundamental research in Hawaii

$3,750,000
Invested in STEM education in Hawaii

TOP NSF-FUNDED ACADEMIC INSTITUTIONS FOR FY 2020

$42,786,000
University of Hawaii

NSF BY THE NUMBERS

The National Science Foundation (NSF) is an $8.5 billion independent federal agency created by Congress in 1950 to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense. NSF’s vital role is to support basic research and researchers who create knowledge that transforms the future.
NSF-FUNDED RESEARCH FIGHTING COVID-19
Congress provided NSF with funding to prevent, prepare for, and respond to COVID-19 in the CARES Act of 2020 and the American Rescue Plan Act of 2021. For more information on NSF’s COVID research, visit NSF’s award database and COVID funding reports.

COVID-19 RESEARCH SPOTLIGHT | Researchers at the University of Hawaii are studying the impacts of the current COVID-19 pandemic and the potential for infection outbreaks to reoccur seasonally. To directly address this need, this project will develop the science to assess community infection prevalence by analyzing the wastewater microbiome, an approach that promises a rapid, sensitive, and comprehensive method for microbial disease surveillance. Successful development will allow assessment of infection rates in the population served by the wastewater treatment plant, including those with mild or no symptoms. Such capabilities would dramatically improve surveillance of pandemics by indicating in real time where the disease is emerging in new hotspots. Such information would inform intervention strategies for controlling the current COVID-19 pandemic and help the nation manage future outbreaks more effectively.

STEM EDUCATION
STEM WORKFORCE DEVELOPMENT | Researchers at Chaminade University of Honolulu will contribute to the national need for well-educated scientists, mathematicians and engineers through a project that will provide scholarships to 20 students pursuing a bachelor’s degree in data science. The project will involve research to explore integration, separation and synergism of Pacific cultural and Western approaches to STEM learning. This project is funded by NSF’s Scholarships in Science, Technology, Engineering, and Mathematics program, which seeks to increase the number of low-income, academically talented students with demonstrated financial need who earn degrees in STEM fields. It also aims to improve the education of future STEM workers and to generate knowledge about academic success, retention, transfer, graduation and academic/career pathways of low-income students.

RESEARCH DRIVING WORKFORCE INNOVATION
FUTURE OF WORK | The Gemini Observatory consists of twin optical/infrared 8-meter telescopes, one each in the Northern and Southern hemispheres, thereby providing complete coverage of the sky. Fundamental questions being investigated are the age and rate of expansion of the universe, the origin of dark energy, the nature of non-luminous matter, and the birth of stars and their planetary systems. Gemini North is located on Mauna Kea on the Big Island of Hawaii. The Daniel K. Inouye Solar Telescope, DKIST, is the world’s most powerful solar observatory. It will enable the study of magnetic phenomena from the solar photosphere to the outer corona. These magnetic phenomena drive the space weather that impacts Earth. DKIST is located on Haleakala in Maui, Hawaii.

EPSCoR
• COMPETITIVE RESEARCH | Hawaii is one of 28 U.S. states or territories under NSF’s Established Program to Stimulate Competitive Research (EPSCoR). Over $5,830,000 in awards have been made to Hawaii academic institutions through EPSCoR in FY 2020. For more information, visit Hawaii’s EPSCoR state web page.

NCSES
• According to the National Center for Science and Engineering Statistics (NCSES), 34% of Science, Engineering, and Health doctorates conferred in Hawaii are made in Life sciences. Visit Hawaii’s science and engineering state profile to learn more!
• 3.47% of Hawaii’s workforce are employed in S&E occupations.
• 7.34% of Hawaii’s industries with high science, engineering, and technology occupations.

LEARN MORE
• NSF70 – In 2020, NSF commemorated its 70th anniversary and the 75th anniversary of the publication of Science - the Endless Frontier. Watch the highlight video for NSF’s seven decades of funding the best and brightest ideas that have transformed our lives and established the U.S. as a science and technology leader.
• NSF FACT SHEETS – NSF provides fact sheets about the agency and its bold investments in basic research. These fact sheets profile NSF investments in research across all fields of science and engineering, including quantum, artificial intelligence, and advanced manufacturing, and the NSF-supported research and computing infrastructure powering the U.S. response to COVID-19.
• CONNECT WITH NSF – For more information on NSF’s impact in your state, please contact NSF’s Office of Legislative and Public Affairs at congressionalteam@nsf.gov.